DOCUMENT RESUME

ED 267 923 PS 015 726

AUTHOR Clemens, Jacqueline Bouder
TITLE Use of the Tests of Adult Basic Education-76 for Assessing Reading, Mathematics, and Language Skills Needed for Vocational Training and Placement in Child Care Services.
PUB DATE [83]
NOTE 21p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; Adult Basic Education; *Child Caregivers; Criteria; Day Care; Early Childhood Education; *Job Placement; *Test Results; *Test Use; *Vocational Education
IDENTIFIERS *Tests of Adult Basic Education 76

ABSTRACT

Correlations were sought between vocational-technical students' performance on subtests of the 1976 edition of the "Tests of Adult Basic Education-76" (TABE) and various factors. The first objective of this study was to determine if there is any relationship between the performance of adults on the 3 subtests (language, reading and math) of the TABE and completion of a Child Care Services program offered at the Lively Area Vocational-Technical Center, Tallahassee, Florida. A second objective was to determine if any relationship exists between program completion status and job placement. Throughout Florida, the TABE is used as a diagnostic assessment instrument to identify minimum academic skills of adults desiring to enter vocational training. Subjects were 4 males and 267 females of 15 or more years of age who were enrolled in the program from September 1977 to September 1981. Data were obtained from existing school records. No significant differences between performance on the three subtests of the TABE and program completion were found. A significant correlation was found among scores on the TABE subtests and four job placement categories: in field, out of field, further education, and other. Grade-level means for subjects fell in the seventh-grade range, with scores ranging from 3.1 to 13.0. It is concluded that the tests should be used for diagnostic purposes only and that the minimum grade level criterion for the program could be lowered to the seventh grade. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED267923

Use of the Tests of Adult Basic Education-76 for Assessing Reading, Mathematics, and Language Skills Needed for Vocational Training and Placement in Child Care Services

Jacqueline Bouder Clemens
Lively Area Vocational-Technical Center
Tallahassee, Florida
(Doctoral Student at Florida State University)

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Jacqueline B. Clemens
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PS 015726

Appreciation is expressed to Dr. Ruth Pestle of Florida State University, College of Home Economics for her helpful suggestions.

ABSTRACT

The purposes of the study were to determine if any correlation exists between performance by adults on the language, reading and mathematics subtests of the TABE-76 and their completion status of the Child Care Services program, and between their grade-level scores on the TABE-76 and job placement. An additional objective was to determine whether the ninth-grade level performance criteria for the program should be maintained or revised. No significant correlation was found between subtests of the TABE-76 and completion status of the program. A significant relationship was found to exist among scores on the TABE-76 subtests and four job placement categories. Grade-level means for adults on the TABE-76 fell in the seventh-grade range, with scores ranging from 3.1 to 13.0.

USE OF THE TESTS OF ADULT BASIC EDUCATION-76 FOR ASSESSING READING, MATHEMATICS AND LANGUAGE SKILLS NEEDED FOR VOCATIONAL TRAINING AND PLACEMENT IN CHILD CARE SERVICES

There is a dearth of published information about the use of the Tests of Adult Basic Education-76 (TABE) for vocational purposes. Because empirical information is needed to guide teachers and vocational counselors in setting appropriate minimum performance criteria for admission into a training program, this study was undertaken to help provide some of the information needed. The study looks at the use of the TABE in one vocational program, Child Care Services, in an area vocational-technical center in north Florida.

Why test adults who are entering job-training programs? Just as performance on standardized tests is used by educational institutions to provide information about students for admissions purposes (Brown, 1980; Fincher, 1981; Pipho, 1982; Trusheim & Crouse, 1972), tests are also used in business and industry (Miller, 1975).

In business and industry tests are used in screening applicants for jobs (Miller). In Psychological Tests in Personnel Assessment, Miller indicates that they can be used to predict probable success on the job, and to compare

applicants. The basic assumption is that the higher the score on a test or battery of tests, the more effective a person will be on the job. Of course, this is subject to the possibility that a person could be overqualified for a position, and do poorly or might not stay because of boredom.

There are various types of validity to consider in selecting tests for the industrial setting and the vocational training setting. Miller emphasizes the importance of predictive validity in the industry setting. That is, how well do the scores relate to performance on the job?

In searching the literature in preparation for this study the researcher was interested in determining if a specific test is available that is designed for adults who seek training to work with young children. Also, is test performance information available regarding potential child care workers?

While many types of vocational preference or interest tests, and tests for manual dexterity and other skills (Buros, 1978) were found, no specific test for child care workers was found. Interpersonal skills were found by Austin-Martin, Buel and Molrine (1981) to be important factors in the classroom in promoting learning of children. Perhaps a test for this should be included in test batteries given to adults seeking child care training. Indeed, it appears that the only form of assessment available in

the area of child care at this time is the nationally recognized program for the Child Development Associate credential. However, it is not a test designed to assess skill and knowledge for admission into training or the occupation. It is a field-tested, competency-based, validated assessment process to evaluate child care workers after they have had training and experience on the job (Sharon et al., 1974).

Why is the TABE used in testing adults for child care training? Throughout Florida the Tests of Adult Basic Education, 1976 Edition (TABE), is used as a diagnostic assessment instrument to identify the minimum skills of adults desiring to enter vocational training programs. According to the Vocational Education Program Courses Standards (Florida Department of Education, 1982) and Barge (1983), the TABE is used in vocational centers, community colleges, prisons, and some secondary schools, wherever the Individualized Manpower Training System (IMTS) is used.

The IMTS provides academic support to adult students whose academic skills do not meet entry criteria for admission to occupational programs of their choice. Students needing remedial instruction may enroll in the IMTS program to receive individualized, programmed instruction to help them achieve the skill level needed. The TABE is used for diagnostic purposes to identify the level of performance in basic academic skills, and also to assess progress towards academic skill goals.

At the area vocational-technical center where this study was conducted, the TABE is administered during the preadmission phase of adult student enrollment, and is used as an aid in counseling. Instructors are asked to indicate the minimum grade level of performance needed for their programs (Self Study, 1982). The minimum grade level of performance designated for the Child Care Services program is ninth grade, but students achieving lower than this may enroll part-time in the program if they enroll in the IMTS program to work on improving their skills in reading, mathematics and language (Home Economics, 1982).

The ninth-grade level criteria for Child Care was based on the reading level of instructional materials, input from the Child Care Advisory Committee, and the results of an informal study conducted on students enrolled during the 1976-1977 school year (Survey, 1977). Performance on the TABE is not the only factor considered for admission to the Child Care Program. Applicants must meet requirements set forth in local and state Child Care licensing regulations, and must demonstrate a sincere interest and ability to work with children (Self-Study Report).

While the TABE is used throughout Florida to assess basic skills of adult students, there is little information available about the use of the tests other than the publisher's Technical Report. The Buros, Eighth Mental Measurements Yearbook contains a review that expresses concern about the

TABE's lack of adult norms. A recent study of the IMTS included some reference to the TABE and the fact that instructors were invited to examine the different levels of the test to identify the specific skills needed for their programs (Florida Department of Education, Assessment . . ., 1982).

Description of TABE

According to the Technical Report (Tests, 1978), the TABE consists of achievement tests in reading, language, and mathematics, and is designed to reflect language and content appropriate for adults. Emphasis is on measuring understanding and application of principles and conventions rather than recall of facts. The tests can be used to provide information about students basic skills as well as for diagnostic purposes and planning individual instruction. The TABE consists of three levels, E (easy), M (medium), and D (difficult), and a Locator test designed to be given first to determine the appropriate level to administer.

The TABE was adapted from the California Achievement Tests-1970 (CAT-70), which were standardized on a national sample of over 200,000 students in grades one through 12. In order to equate the TABE-76 and the CAT-70, testing was done on a sample of adults in Adult Basic Education Classes. Statistical analyses were done to check for reliability and validity. Correlations were obtained using the Pearson

Product Moment on test-retest groups; they varied from r = .60 for language mechanics and expression to r = .85 for total reading. No information is provided regarding regression analysis.

Specific Objectives

The first objective of this study was to determine if there is any relationship between the performance of adults on the 3 subtests (language, reading and math) of the TABE and completion of the Child Care Services Program. (Completion refers to whether or not they finished the program.) A second objective was to determine if any relationship exists between completion status and job placement.

A third objective was to determine whether the ninth-grade-level performance criteria on the TABE should be maintained or revised. The Child Care Services program consists of (1) classroom instruction involving competency-based modules; (2) supervised work with toddlers and preschoolers in the child care center on the premises of the vocational-technical center, and (3) supervised 2-week internship at a child care center in the community.

Procedures

The sample studied in this research was selected from the population of adult students enrolled in the Child Care Services program at one area vocational-technical center. It was limited to those adults enrolled from September 1977,

to September 1981. Included in the sample were 4 males and 267 females, ages 15 and above.

Data needed for the study were obtained from existing school records on enrollment, completion, placement and testing. The independent variables were grade-level scores on the language, reading and mathematics tests. Dependent variables were program completion and job placement. The program completion category consisted of 2 subgroups, finish and non-finish. Job placement had 4 subgroups (1) in-field (employed in the child care field); (2) not-in-field; (3) further education (continued education in same school or college); and (4) other (student delayed employment because of factors such as pregnancy or moving to another community).

Results and Discussion

Objective One

Was any relationship found between the performance by adults on the 3 subtests of the TABE and completion of the Child Care Services program? To determine the answer to this, a point-biserial correlation (Ferguson, 1976) was calculated for each of the 3 tests (reading, language, and mathematics), and the 2 groups of the completion of program category (finish and non-finish). A two-tailed t-test was computed on each of the point biserial correlations to test the significance of r_{pbi} from 0.

No significant correlation was found between performance on the TABE tests for reading, language and mathematics, and adults' completion status in the Child Care Services Program. In testing the 3 null hypotheses that there would be no relationship between scores on the reading, language and math tests of the TABE, and program completion, the point biserial correlations were found to be not significant at $p \leq .05$. Therefore, the null hypotheses were not rejected. For the reading test a negative correlation was found, $r_{pbi} = -.08$ for N=256, df = 254, t = 15.90, and standard error of $r_{pbi} = .06$. Similarly for the language test with N=255, $r_{pbi} = -.08$, df = 253, t = 15.88, and standard error of $r_{pbi} = .06$. A negative correlation was also found for the mathematics test, $r_{pbi} = .05$, for N=256, df = 254, t = 15.91, and the standard error of $r_{pbi} = .06$.

Objective Two

Does any relationship exist between completion status and job placement? A chi-square analysis to test the null hypothesis, that there would be no relationship between program completion status and placement in field, resulted in values that can be considered significant at $p \leq .05$. Therefore, the null hypothesis was rejected. The raw chi square = 42.99, with df = 3, and $p = .00$. Results of the chi-square test are shown on Table 2.

Placement information was available for 189 cases, but missing for 82 cases (30.3%). The mean scores and standard deviations for each of the 3 subtests, reading, language, and mathematics in relation to the 4 job-placement categories are shown on Table 3. With placement data not available for almost a third of the sample, an incomplete picture of placement occurs. This is a matter to be concerned about. The concern is consistent with a recent study by the Governor's Commission on Secondary Schools for the State of Florida, which cited the generally poor placement information available on vocational programs in Florida (Governor's Commission, 1982).

The data show that in placement adult students who performed better on the tests tended to further their education, rather than enter the job market immediately. Individuals placed in jobs out-of-field tended to have a lower mean score than individuals placed in-field. Those who finished the program were placed in-field at the rate of 59.6%. Data show that adults performing as low as third and fifth-grade levels can finish the program and be placed in jobs in-field.

Objective Three

Should the ninth-grade-level performance criteria be changed? Of the 271 students enrolled, 114 (42%) completed the Child Care Services Program, and 157 (58%) did not

finish. As can be seen on Table 1, the grade-level scores of 256 adult students (15 missing cases) for the 3 subtests, reading, language, and mathematics, reflect a wide range in academic abilities. The scores in the 3 areas ranged from third-grade level to twelfth-grade level or above, with the lowest scores occurring in the reading area. Additional descriptive statistics are contained in Table 1.

In comparing mean scores of those who finished the program with those who did not finish, the data reveal that the non-finishers tended to have slightly higher scores on language and reading than those who finished.

The mean scores for the adult students on all 3 tests were in the seventh-grade range, considerably lower than the ninth-grade performance criteria set for the program.

Implications

The fact that there were no significant differences between performance on the 3 subtest areas of the TABE and students finishing or non-finishing the Child Care Services program, seems to indicate that the tests should be used only for diagnostic purposes rather than predictive purposes. The practice of using other factors in addition to the information provided by the TABE for admitting students should be continued. This concept is supported by Brown, who states that "Test scores should not be the sole factors in determining the admissions of an applicant to an

institution, but should be considered one aspect of the description of an individual in this process" (Brown, p. 40).

While it was not a topic of this study, the high proportion of students who do not finish the program is a matter to be concerned about. Further research is needed in this area to identify specific factors at work. Are low socio-economic level and the lack of adequate financial resources factors that affect students' completion of the program? The vocational center serves a three-county area and draws students even beyond this area. Could transportation be a factor? What personal and family problems contribute to students being dropped from a program because of excessive absenteeism? Is the testing and counseling process adequately screening out individuals who are not genuinely interested in, or suited to working with young children? Would it be helpful to assess interpersonal skills (Austin-Martin et al., 1981)?

What are the implications of the findings for the Child Care Services program? It appears that the minimum grade level criteria for the Child Care Services program could be lowered from ninth grade to seventh grade, since the averages for all three subtest areas (Table 2) fell on the seventh grade level, and a significant number of higher performing students choose to further their education rather than enter the job market.

Table 1

Grade Level Performance on the TABE-76 for Reading, Language and Mathematics

Status	Min.	Max.	Range	Mean	SD	Variance	SEE	Mode	Median
Non-Finish (157)									
read	3.1	11.9	8.8	7.51	1.77	3.14	.15	8.8	7.28
lang	4.0	11.6	7.6	7.39	1.89	3.56	.16	6.7	7.30
math	4.3	10.8	6.5	7.26	1.47	2.17	.12	6.2	7.22
Finish (114)									
read	3.6	12.6	9.0	7.23	1.71	2.92	.16	6.3	7.12
lang	3.2	13.0	9.8	7.09	2.01	4.04	.19	5.3	6.68
math	3.2	12.6	9.3	7.13	1.43	2.04	.14	7.0	6.99
Total (271)									
read	3.1	12.6	9.5	7.39	1.75	3.06	.11	8.8	7.18
lang	3.2	13.0	9.8	7.26	1.94	3.78	.12	6.7	7.18
math	3.3	12.6	9.3	7.20	1.45	2.11	.09	7.0	7.07

Table 2

Chi Square Analysis of Program Completion and Placement

Program Completion	Job Placement				Raw Total
	Field	Out-of Field	Education	Other	
Non-Finish	14.4%	20.0%	51.1%	14.4%	47.6%
Finish	59.6%	14.1%	18.2%	8.1%	52.4%
Column Total	38.1%	16.9%	33.9%	11.1%	100.0%

*Missing cases = 82; Total cases = 271

Raw Chi Square = 42.99; F = 3; Sig. = .00

Table 3

Mean Scores and Standard Deviations on TABE for Job-Placement Categories

TABE	Job Placement							
	In-Field		Out-of-Field		Further Education		Other	
	M	SD	M	SD	M	SD	M	SD
reading	7.18	1.68	6.99	1.50	8.05	1.85	7.67	1.60
language	6.99	1.86	6.90	1.54	8.11	2.04	7.37	2.17
mathematics	7.02	1.28	6.83	.96	7.91	1.58	7.29	1.18

N = 189.

Missing cases = 82.

REFERENCE NOTES

Barge, J. A. Interview. Tallahassee, FL: Florida Department of Education, February 9, 1983.

Florida Department of Education, Division of Vocational Education. Assessment of the individualized manpower training system, final report. Carol F. Hopkins, Project Director. Tallahassee, FL: 1982.

Florida Department of Education, Division of Vocational Education. Vocational Education Program Courses Standards. Tallahassee, FL: 1982.

Governor's Commission on Secondary Schools for the State of Florida. Secondary education, a report to the citizens of Florida. Tallahassee, FL: State of Florida Department of Education, December, 1982.

Home Economics program supplement standard IV of the self-study report for the Commission on Occupational Education Institutions, Southern Association of Colleges and Schools. (unpublished). Tallahassee, FL: Lively Area Vocational-Technical Center, 1982.

Self-study report for the Commission on Occupational Education. Institutions, Southern Association of Colleges and Schools, reaffirmation. (unpublished). Tallahassee, FL: Lively Area Vocational-Technical Center, 1982.

Survey of child care students, July 1, 1976 - June 30, 1977. (unpublished report). Tallahassee, FL: Home Economics Department, Lively Area Vocational-Technical Center, 1977.

REFERENCES

Austin-Martin, G., Buel, D., & Molrine, C. A study of the effectiveness of a pre-student teaching experience in promoting positive attitudes toward teaching. Peabody Journal of Education, April, 1981, 58, 148-153.

Brown, T. M. The use of tests in traditional admissions. ; The Journal of the National Association of College Admissions Counselors, January 1980, 24, 37-41.

Buros, O. K. The eighth mental measurements yearbook, Volume II. Highland Park, NJ: The Gryphon Press, 1978.

Ferguson, G. A. Statistical analysis in psychology and education, fourth edition. New York: McGraw-Hill Book Company, 1976.

Fuecher, C. Admissions testing in the 1980s. Peabody Journal of Education, January, 1981, 58, 84-90.

Miller, K. M. Psychological testing in personnel assessment. New York: John Wiley & Sons, 1975.

Pipho, C. Stateline states move to re-establish academic standards in public schools and colleges. Phi Delta Kappan, September, 1982, 64, 5.